REMARKS

Applicants acknowledge with appreciation the indication of allowability of Claims 19 to 21.

Reconsideration of presently solicited method Claims 16 to 21 and 24 to 30 respectfully is requested. For the reasons indicated hereafter these claims are urged to be in condition for allowance.

Applicants have provided a series of process steps while using specific starting materials to form a quality semiconductor nanocrystal pattern on a substrate. The specified process steps while using the specified starting materials make possible the creation of a precise predetermined pattern in the form of a dense semiconductor nanocrystal thin film while advantageously retaining he nanocrystalline properties of the specified starting material. The resulting pattern inherently displays the luminescence characteristics of the semiconductor nanocrystals prior to the formation of the pattern and an enhanced light emitting efficiency. The excellent luminescence characteristics of the resulting product enable its utilization in solid state device, such as organic light emitting diodes and photovoltaic devices.

Independent Claim 16 has been amended to indicate compounds having a photosensitive functional group that are surface-coordinated with the semiconductor nanocrystals, and CdS and CdSe are included in the listing of semiconductor nanocrystals. Newly presented dependent Claims 24 to 27 specify the compounds having a photosensitive functional group that are surface-coordinated with the semiconductor nanocrystals with greater specificity. Newly presented independent Claim 29 presents the subject matter of dependent Claim 20 that was indicated to be

allowable in independent form. Finally, newly presented Claim 30 presents the subject matter of dependent Claim 21 that was indicated to be allowable in independent form.

The continued rejection of presented solicited Claims 16 to 18 under 35 U.S.C. §103(a) over the different teachings of U.S. Patent Publication No. 2005/0054004 to Alivisatos et al. combined with those of U.S. Patent Publication No. 2003/0186645 to Wang would be lacking sound technical and legal bases.

Alivisatos et al. is concerned with the formation of graded core/shell semiconductor nanorods and nanorod barcodes unlike Applicants' claimed technology. Also, it is not apparent that Alivisatos et al. even in the different technology there discussed ever contemplated the use of semiconductor nanocrystals that are surface coordinated with a compound containing a photosensitive functional group as presently claimed. Clearly, the trioctylphoshine oxide utilized by Alivisatos et al. is unrelated to the subject matter of Applicants' presently solicited Claim 16. Also, as acknowledged at Page 3 of the Official Action, Alivisatos et al. is deficient in its failure to ever contemplate a selective exposure through a mask and the development of an exposed film for any purpose.

The readily apparent deficiencies of the primary reference are not remedied by reference to Wang where cross-linked images are formed in an entirely different context by the use of ionization radiation such as x-ray, electron beam, ion beam, and gamma rays while using the certain reactive monomers. This is unlike Applicants' specifically claimed method wherein cross-linking is achieved as described to form a dense semiconductor nanocrystal thin film while advantageously retaining the nanocrystal properties of the specified starting material. Even if the

reasonably derived teachings of the references were somehow combined (which is not reasonably suggested) Applicants' specifically defined contribution still would not result.

Further the specific and different organic polymer teachings of U.S. Patent Publication No. 2004/022412 to Bai et al. add nothing that is capable of remedying basic shortcomings of the references so as to render Applicants' specifically claimed contribution obviously apparent to one of ordinary skill in the art.

It is basic to the examination process that in order to establish *prima facie* obviousness of a claimed invention, all of the claim limitations must be taught or suggested by the prior art. See M.P.E.P. §2143.03 in this regard. To establish *prima facie* obviousness of a claimed invention, all claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art". *In re Wilson*, 424 F.2d 1382, 1385, 165 U.S.P.Q. 494, 496 (CCPA 1970).

Each of the presently solicited claims is urged to well distinguish over the reasonably derived teachings of the references.

In the event there is any remaining point that requires clarification prior to the allowance of the Application, the Examiner is respectfully urged to telephone the undersigned attorney so that the matter can be discussed and resolved.

Respectfully submitted,

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